

Rising 8th Grade Summer Math

Date _____ Period _____

Evaluate each expression. Remember to use your integer rules for adding/subtracting.

1) $(-8) - (-1)$

2) $(-9) + 6$

3) $(-11) - 11$

4) $9 + (-5)$

5) $(-7) + (-11)$

6) $(-11) - (-10)$

7) $(-5) + (-4)$

8) $9 - (-12)$

9) $(-3) + 11$

10) $2 - 11$

11) $9 - (-2)$

12) $9 + (-9)$

13) $(-15) + (-9)$

14) $(-4) - (-4)$

15) $(-16) - 3$

16) $(-23) + 19$

17) $(-22) - (-18)$

18) $16 + (-10)$

19) $10 - (-9)$

20) $(-19) + 17$

21) $(-21) - (-9)$

22) $3 - 14$

$23) 19 + (-6)$

$24) (-22) - 17$

$25) 4 - (-6)$

$26) (-17) + (-2)$

$27) 12 - 23$

$28) 23 - (-12)$

$29) 18 - 23$

$30) 4 - (-22)$

Find each product.

$31) (7)(-4)$

$32) (-10)(5)$

$33) (5)(-6)$

$34) (-9)(7)$

$35) (5)(-1)$

$36) (-6)(12)$

$37) (11)(-11)$

$38) (6)(-3)$

$39) (12)(-6)$

$40) (-3)(-11)$

Find each quotient.

$41) 28 \div -4$

$42) 36 \div -12$

$43) 50 \div 10$

$44) -225 \div 15$

45) $-77 \div -11$

46) $-96 \div -8$

47) $-112 \div 8$

48) $81 \div -9$

Evaluate each expression. Remember to get a common denominator when adding/subtracting fractions! You may want to turn your mixed numbers into improper fractions before you add/subtract. Remember to use your integer rules!

49) $\frac{3}{4} + \left(-\frac{9}{8}\right)$

50) $\frac{5}{7} - \frac{3}{2}$

51) $\left(-2\frac{1}{6}\right) + \frac{1}{2}$

52) $\left(-\frac{3}{4}\right) - \left(-\frac{10}{7}\right)$

53) $\frac{10}{7} - \frac{7}{5}$

54) $\left(-2\frac{3}{5}\right) + 7\frac{7}{8}$

Find each product or quotient. Turn ALL mixed numbers into improper fractions BEFORE you multiply/divide.

55) $\frac{3}{4} \cdot -\frac{4}{5}$

56) $\frac{3}{10} \cdot -\frac{5}{3}$

57) $-1\frac{7}{10} \cdot 4\frac{3}{7}$

58) $3\frac{3}{7} \cdot -2$

59) $\frac{-1}{8} \div \frac{-3}{2}$

60) $6 \div \frac{-1}{5}$

61) $2\frac{1}{2} \div \frac{-8}{9}$

62) $-2\frac{5}{7} \div -2\frac{1}{2}$

Evaluate each using the values given.

63) $x^2 - (z + x)$; use $x = -6$, and $z = 9$

64) $|p| - (p - q)$; use $p = -10$, and $q = 3$

65) $y + y - x^2$; use $x = -8$, and $y = -10$

66) $x - (y - 7x)$; use $x = -10$, and $y = -3$

67) Translate the following algebraic expressions:

a) One less than the product of four and a number.

b) Two-thirds of a number increased by seven.

c) Nine subtracted from a number squared.

d) The quotient of twice a number and five.

Simplify each expression. Remember to combine like terms.

68) $-3 - 3m + 6m + 10$

69) $10x - 4 + 7x - 10$

70) $-5(8n - 3)$

71) $3(-7k + 5)$

72) $-4n + 4(2n + 10)$

73) $6(-4a - 10) + 2a$

74) $5r - 10(-2 - r)$

75) $3(2 + 2x) + 10$

Solve each equation. Remember to move variables to one side of the equation and constants to the other side using inverse operations. Combine like terms first if necessary.

76) $-16 + x = -9$

77) $52 = -4p$

78) $\frac{a}{7} = 6$

79) $-6 = v - 18$

80) $3a + 5 = -52$

81) $11 = \frac{m}{2} + 4$

82) $\frac{m+4}{3} = -2$

83) $2r - 5r = -24$

84) $-14 = 6x - 5 + 3x$

85) $-5x - 2(-2 - 8x) = 92$

86) $-5(3r - 8) = 115$

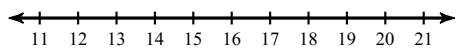
87) $6(x - 5) + 2x = -94$

88) $-2(8 + 6n) - 4 = 16 + 6n$

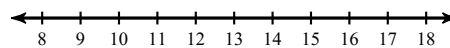
89) $-5(3a + 4) = -34 - 8a$

Solve each inequality and graph its solution. Remember to flip the inequality symbol when multiplying or dividing both sides by a negative number.

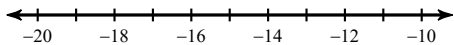
90) $m - 6 < 11$



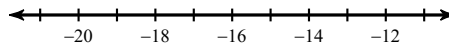
91) $x - 14 > -1$



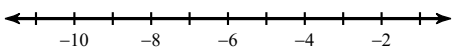
$$92) \frac{n-7}{22} \leq -1$$



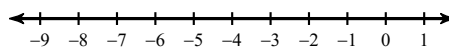
$$93) 4 + \frac{n}{2} \geq -4$$



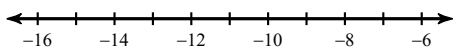
$$94) 2 + 3v \geq -13$$



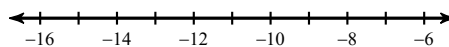
$$95) 7(1-3n) - 6n \leq 142$$



$$96) 6(-2x+3) - 8 > 106$$



$$97) 8 - 8(n-3) \leq 96$$



Write an inequality for each graph.

